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| ctgggtggct | cttccacagg  | accaaatttg  | gctgccagtg  | gagaaatata | actttggcca | 480  |
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| taatgctgga | cttttcttag  | tcactgctaa  | tttctcagct  | ccagctcacc | agcactgagt | 600  |
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| ttcttcagcc | ccagctaattg | agatattatg  | ttatcacgga  | atcttaattc | aatataacaa | 720  |
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| catcaactgg  | gcctgggagc  | tcgtgcctgt  | aatctcagtc  | cttgggagac  | aaatgcagga | 1560 |
| gaattgtcat  | gtacttgaag  | ccagtctggg  | ctgcacagta  | gtcatggtta  | tcacagcaat | 1620 |
| agaaagtaag  | taaaacaggt  | agcaaggcac  | tttcagcttt  | gaagaaatgc  | ctgcctccat | 1680 |
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| caagagctga  | aaagttcccc  | aaaagctaga  | gtgccgtca   | ccatcctggc  | tttgccgact | 1800 |
| tcctcttttg  | ctttgttcat  | ttcctttgcc  | aacatcatca  | tcagtatcgt  | catcactatg | 1860 |
| ccacaccccc  | agcataacaa  | tttctatagt  | gagttatttc  | ttctactcat  | tggggaccaa | 1920 |
| aaaggaagtg  | tggctctgaga | gacagggttt  | gatatacatg  | ttgtgcaact  | tgctgtctct | 1980 |
| ataacgacaa  | ggggaggaaa  | tttggagccc  | aagtcacagg  | gccaggatga  | ggtttgatag | 2040 |
| aacaatagag  | taccagaggc  | attgccagtc  | agttccaaaa  | tctccctcta  | gaagcaaaag | 2100 |
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&lt;210&gt; 6

&lt;211&gt; 9247

&lt;212&gt; DNA

&lt;213&gt; Artificial

&lt;400&gt; 6

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| ctgggtggct | cttccacagg | accaaatttg | gctgccagtg  | gagaaataca | actttggcca | 480 |



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| gaattgtcat  | gtacttgaag  | ccagctctgg | ctgcacagta | gtcatggtta | tcacagcaat  | 1620 |
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| cacgttgaca  | gctagggtct  | gttctagaga  | gtgctgccta  | atgtcccctt | gaatcaactt  | 240  |
| aaatagatca  | accaatcaat  | aaatacataa  | ataaataggt  | aagtggttgc | ccatcagagg  | 300  |
| caaggaggaa  | acacaggctc  | tctttgaaca  | gaattgtgcca | tggtttcttg | tgacctgag   | 360  |
| cgacctgtct  | tggccgagga  | ctaaggagt   | tcctagagat  | tgagctgtct | gctcattcat  | 420  |
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| taaagccgaa  | ttctgcagat  | atccatcaca  | ctggcgccg   | cgactctaga | tcataatcag  | 540  |
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| cctgaaacat  | aaaatgaatg  | caattgttgt  | tggttaactg  | tttattgcag | cttataatgg  | 660  |
| ttacaaataa  | agcaatagca  | tcacaaat    | cacaaataaa  | gcattttttt | cactgcattc  | 720  |
| tagttgtgg   | ttgtccaaac  | tcataaatgt  | atcttaaggc  | gtaaattgta | agcgttaata  | 780  |
| ttttgttaaa  | attcgcgtta  | aatttttgtt  | aatcagctc   | attttttaac | caataggccg  | 840  |
| aaatcggcaa  | aatcccttat  | aatcaaaa    | aatagaccga  | gatagggttg | agtgttgttc  | 900  |

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&lt;210&gt; 13

&lt;211&gt; 7183

&lt;212&gt; DNA

&lt;213&gt; Artificial

&lt;400&gt; 13

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&lt;213&gt; Artificial

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| <212>       | DNA         |             |             |            |            |      |
| <213>       | Artificial  |             |             |            |            |      |
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| ataatgacgt  | atgttcccat  | agtaacgcca  | atagggactt  | tccattgacg | tcaatgggtg | 180  |
| gagtatttac  | ggtaaactgc  | ccacttggca  | gtacatcaag  | tgtatcatat | gccaagtacg | 240  |
| ccccctattg  | acgtcaatga  | cggtaaatgg  | ccgcctggc   | attatgcccc | gtacatgacc | 300  |
| ttatgggact  | ttcctacttg  | gcagtacatc  | tacgtattag  | tcacgtctat | taccatggtg | 360  |
| atgcggtttt  | ggcagtacat  | caatgggcgt  | ggatagcgg   | ttgactcacg | gggatttcca | 420  |
| agtctccacc  | ccattgacgt  | caatgggagt  | ttgttttggc  | acaaaaatca | acgggacttt | 480  |
| ccaaaatgtc  | gtaacaactc  | cgccccattg  | acgcgaatgg  | gcggtaggcg | tgtacgggtg | 540  |
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| cagatctcga  | gctcaagctt  | cgaattctgc  | agtcgacggt  | accgcggggc | cgggatccac | 660  |
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| tcgagctgga  | cggcgacgta  | aacggccaca  | agttcagcgt  | gtccggcgag | ggcgagggcg | 780  |
| atgccaccta  | cggcaagctg  | accctgaagt  | tcactcgcac  | caccggcaag | ctgcccgtgc | 840  |
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| gcgacaccct  | ggtgaaccgc  | atcgagctga  | agggcatcga  | cttcaaggag | gacggcaaca | 1080 |
| tcctggggca  | caagctggag  | tacaactaca  | acagccacaa  | cgtctatatc | atggccgaca | 1140 |
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| ctaggatcaa  | tgtgtagatg | cgcggccgcc | agtgtgatgg  | atatctgcag  | aattcggtt   | 1560 |
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| tttgtccaaa  | ctcatcaatg | tatcttaagg | cgtaaattgt  | aagcgtaaat  | attttgttaa  | 1920 |
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| aaatccctta  | taaatcaaaa | gaatagaccg | agatagggtt  | gagtggtgtt  | ccagtttggg  | 2040 |
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&lt;210&gt; 24

&lt;211&gt; 4229

&lt;212&gt; DNA

&lt;213&gt; Artificial

&lt;400&gt; 24

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| tgagtccaag  | gatccacacg  | gtgcaaagag  | agaccgggtc  | tcctgacctc  | cacactgatg  | 360  |
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| ctccatatag  | ctaaagcctc  | attccatggt  | cctgcctgcc  | ccactccatg  | tcacctctct  | 540  |
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| gcttataatg  | gttacaaata  | aagcaatagc  | atcacaaatt  | tcacaaataa  | agcatttttt  | 2040 |
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| gcgatcacat  | ggtcctgctg  | gagttcgtga  | ccgcgcggcg  | gatcactctc  | ggcatggacg  | 840  |
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| aatattgaaa  | aaggaagagt  | cctgaggcgg  | aaagaaccag  | ctgtggaatg  | tgtgtcagtt  | 1860 |
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| ttagtcagca  | accaggtgtg  | gaaagtcccc  | aggctcccca  | gcaggcagaa  | gtatgcaaag  | 1980 |
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| gctcgtatgt  | tgtgtggaat  | tgtgagcgga  | taacaatttc  | acacaggaaa  | cagctatgac  | 120  |
| catgattacg  | ccaagcttgc  | atgcctgcag  | gtcagcttgt  | gagctctagt  | tcaaggatcc  | 180  |
| acacgggtga  | aagagagacc  | cgtgtctctg  | acctccacac  | tgatgctgta  | gtgcacatag  | 240  |
| atacacacat  | gctcacatga  | agtaatttaa  | aaaaaatttt  | ttttaaatca  | gccattttct  | 300  |
| aggcttctgt  | ctaaggtagg  | aaaaatcttc  | aacctagccc  | agaacctcca  | tatagctaaa  | 360  |
| gcctcattcc  | atggctcctg  | ctgccccact  | ccatgtcacc  | tctctgtctc  | caaagaccac  | 420  |
| aaacttgtaa  | gatcagctgg  | gctaggatgc  | gagaaggctt  | gcctccatca  | tccttctatg  | 480  |
| aggttaagacc | ccagaatcag  | ctttcccaag  | atatcagagt  | ttccaagggg  | cccccatagc  | 540  |
| aggaagcagc  | tgtgcgcaag  | ctgcgcacac  | gcagactttc  | ttgatattac  | tctgtctttc  | 600  |
| cccagggcga  | caccagcacc  | ctcggacacc  | tgtgacctct  | ttcttctctg  | caggaggaga  | 660  |
| gccagtggca  | accctacgct  | gattagatta  | gtcttaaagg  | ccgttatggg  | tgtaattttc  | 720  |
| tatgctgaaa  | ctttgtagat  | ttaaaaaaa   | aaaggggggg  | gaggggtgtt  | tcattttcca  | 780  |
| attggctctga | tttcacagga  | aaattttacct | gtttctcttt  | tttctctctg  | aagagaggtg  | 840  |
| ctgattggcc  | cagaataact  | gacaatctgg  | tgtataaaaa  | ttttccaatg  | taaactcatt  | 900  |

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| ggtgggtgcc | atcctgggtcg | agctggacgg | cgacgtaaac  | ggccacaagt | tcagcgtgtc  | 1080 |
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| tgcccgacaa  | ccactacctg  | agcaccagct  | ccgcctgag   | caaagacccc  | aacgagaagc | 780  |
| gcgatcacat  | ggtcctgctg  | gagttcgtga  | ccgcgcgcgg  | gatcactctc  | ggcatggacg | 840  |
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| agttgcttct  | gctgttggaa  | acggacatcc  | caaaaaaaa  | caaaaaacag | aatcaaaag   | 180  |
| ggaaggagaa  | agtgaagg    | atggaggcag  | cttgctccct | tccctgtgct | tgctgctggt  | 240  |
| agaaaaactca | gcctggaa    | gaccggagca  | gcagttcttg | agtcaattcc | attccaactt  | 300  |
| ctagaagatt  | cttttcccg   | cgaagagtgt  | caggaggaga | ggccagaccc | ccttgatcct  | 360  |
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| ccccgtactg  | atgcaggaag  | gacagcccg   | gagtgatccc | tctacatggg | tctactttta  | 540  |

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| <211>       | 6223        |            |             |             |             |      |
| <212>       | DNA         |            |             |             |             |      |
| <213>       | Artificial  |            |             |             |             |      |
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| gggggtcagtc | ctctgatcta  | cagcagtggt | tccacaccta  | aaacatcagc  | tcagagaggc  | 120  |
| agttgcttct  | gctgttgga   | acggacatcc | caaaaaaaa   | caaaaaacag  | aaatcaaaag  | 180  |
| ggaaggagaa  | agtgaaggag  | atggaggcag | cctgtcccct  | tccctgtgct  | tgtgtcgtgt  | 240  |
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| tggccttttg  | ctcacatggt  | ctttcctgcg  | ttatcccttg  | attctgtgga  | taaccgtatt  | 6180 |
| accgccatgc  | attagttatt  | actagcgcta  | cggactcag   | atc         |             | 6223 |



&lt;210&gt; 40

&lt;211&gt; 6352

&lt;212&gt; DNA

&lt;213&gt; Artificial

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| ccctgcagcc  | tgtgcttctg  | ctaggatcaa  | ttgttagatg | cgcggcccg   | ggaattcgat  | 2520 |
| ttaaaacacc  | tgacgtgtgt  | attgagctctg | ctggactcca | ggacctagac  | agagctctct  | 2580 |
| aaatctgatc  | cagggatcct  | agctaacgga  | aacaactcct | tggaaaacct  | cgtttgtacc  | 2640 |
| tctctccgaa  | atattttatta | cctctgatac  | ctcagttccc | attctatttta | ttcactgagc  | 2700 |
| ttctctgtga  | actattttaga | aagaagccca  | atattataat | tttacagtat  | ttattatttt  | 2760 |
| taacctgtgt  | ttaagctgtt  | tccattgggg  | acactttata | gtattttaaag | ggagattata  | 2820 |
| ttatatgatg  | ggaggggttc  | ttccttggga  | agcaattgaa | gcttctattc  | taaggctggc  | 2880 |
| cacacttgag  | agctgcaggg  | cccttttgcta | tgtgtgcctt | tcaattgctc  | tcacccctga  | 2940 |
| gttcagagct  | cctaagagag  | ttgtgaagaa  | actcatgggt | cttggggaaga | gaaaccaggg  | 3000 |
| agatcccttg  | atgatcattc  | ctgcagcagc  | tcagaggggt | cccctactgt  | catccccag   | 3060 |
| ccgcttcac   | cctgaaaact  | gtggccagtt  | tgttatttat | aaccaccta   | aattagttct  | 3120 |
| aatagaactc  | atttttaact  | agaagtaagt  | caattcctct | gggaatgggtg | tattgtttgt  | 3180 |
| ctgcctttgt  | agcagactct  | aattttgaa   | aaatggatct | tattcgctta  | aggcgtaaat  | 3240 |
| tgtaaagcgt  | aatattttgt  | taaaattcgc  | gttaaaat   | tgttaaatca  | gctcattttt  | 3300 |
| taaccaatag  | gccgaatcg   | gcaaaatccc  | ttataaatca | aaagaataga  | ccgagatagg  | 3360 |
| gttgagtgtt  | gttccagttt  | ggaacaagag  | tccactatta | aagaacgtgg  | actccaacgt  | 3420 |
| caaaggcgga  | aaaaccgtct  | atcagggcga  | tggccacta  | cgtgaaccat  | caccctaata  | 3480 |
| aagttttttg  | gggtcgaggt  | gccgtaaaag  | actaaatcgg | aaccctaag   | ggagcccccg  | 3540 |
| atttagagct  | tgacggggaa  | agccggcgaa  | cgtggcgaga | aaggaaggga  | agaaagcgaa  | 3600 |
| aggagcgggc  | gctagggcgc  | tggcaagtgt  | agcggtcacg | ctgcgcgtaa  | ccaccacacc  | 3660 |

|             |             |             |            |             |             |      |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| cgccgcgctt  | aatgcgcgcg  | tacagggcgc  | gtcaggtggc | acttttcggg  | gaaatgtgcg  | 3720 |
| cggaacccct  | atttggtttat | ttttctaaat  | acattcaaat | atgtatccgc  | tcatgagaca  | 3780 |
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| cagctgtgga  | atgtgtgtca  | gttaggggtgt | ggaaagtccc | caggctcccc  | agcaggcaga  | 3900 |
| agtatgcaaa  | gcatgcatct  | caattagtca  | gcaaccaggt | gtggaaagtc  | cccaggctcc  | 3960 |
| ccagcaggca  | gaagtatgca  | aagcatgcat  | ctcaattagt | cagcaacccat | agtcccgcgc  | 4020 |
| ctaactccgc  | ccatcccgcg  | cctaactccg  | cccagttccg | cccattctcc  | gccccatggc  | 4080 |
| tgactaattt  | tttttattta  | tgcaagggcc  | gaggccgcct | cggcctctga  | gctattccag  | 4140 |
| aagtagtgag  | gaggcttttt  | tggaggccta  | ggcttttgca | aagatcgatc  | aagagacagg  | 4200 |
| atgaggatcg  | tttcgcatga  | ttgaacaaga  | tggattgcac | gcaggttctc  | cggccgcttg  | 4260 |
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| cgtgttcggy  | ctgtcagcgc  | aggggcgcgc  | ggttcttttt | gtcaagaccg  | acctgtccgg  | 4380 |
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| tccttgcgca  | gctgtgctcg  | acgtttgtcac | tgaagcggga | agggaactggc | tgctattggg  | 4500 |
| cgaagtgcgg  | gggcaggatc  | tcctgtcatc  | tcaccttgct | cctgccgaga  | aagtatccat  | 4560 |
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| ccaagcgaag  | catcgcatcg  | agcagcacgc  | tactcggatg | gaagccggtc  | ttgtcgatca  | 4680 |
| ggatgatctg  | gacgaagagc  | atcaggggct  | cgcgccagcc | gaactgttcg  | ccaggctcaa  | 4740 |
| ggcgagcatg  | cccgacggcg  | aggatctcgt  | cgtgaccat  | ggcgatgcct  | gcttgccgaa  | 4800 |
| tatcatgggt  | gaaaatggcc  | gcttttctgg  | attcatcgac | tgtggccggc  | tgggtgtggc  | 4860 |
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| cttctatcgc  | cttcttgacg  | agttcttctg  | agcgggactc | tggggttcga  | aatgaccgac  | 5040 |
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| tcgtttgttc  | ataaacgcgg  | ggttcggtcc  | cagggctggc | actctgtcga  | tacccaccgc  | 5340 |
| agaccccat   | ggggccaata  | cgcgccgctt  | tcttcccttt | ccccaccca   | ccccccaagt  | 5400 |
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| ggttactcat  | atatacttta  | gattgattta  | aaacttcatt | tttaatttaa  | aaggatctag  | 5520 |
| gtgaagatcc  | tttttgataa  | tctcatgacc  | aaaatccctt | aacgtgagtt  | ttcgttccac  | 5580 |
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| actgtccttc  | tagtgtagcc  | gtagttaggc  | caccacttca | agaactctgt  | agcacccgct  | 5820 |
| acatacctcg  | ctctgcta    | cctgttacca  | gtggctgctg | ccagtggcga  | taagtctgtg  | 5880 |
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| tcgtcagggg  | ggcggaagcct | atggaaaaac  | gccagcaacg | cggccttttt  | acggttcctg  | 6240 |
| gccttttgc   | ggccttttgc  | tcacatgttc  | tttctcgct  | tatccctga   | ttctgtggat  | 6300 |
| aaccgtatta  | ccgccatgca  | ttagttatta  | ctagcgtac  | cggactcaga  | tc          | 6352 |